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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,821	12/26/2001	Satoshi Shinada	Q67781	4266

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EXAMINER	
LIANG, LEONARD S	

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,821	SHINADA ET AL.	
	Examiner	Art Unit	
	Leonard S. Liang	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

4a) Of the above claim(s) *3,7,8,12,17-19,28-31,38 and 44-60* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6,9-11,13-16,20-27,32-37 and 39-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/27/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

The response to election/restriction filed on 03/03/05 has been acknowledged. Claims 1, 2, 4-6, 9-11, 13-16, 20-27, 32-37, and 39-43 have been elected. Thus, these claims will be examined and all other claims will be withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

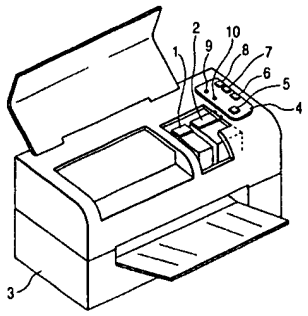
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1, 2, 4-6, 9-11, 13-16, 20-27, 32-37, and 39-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Seino et al (US Pat 6361138).

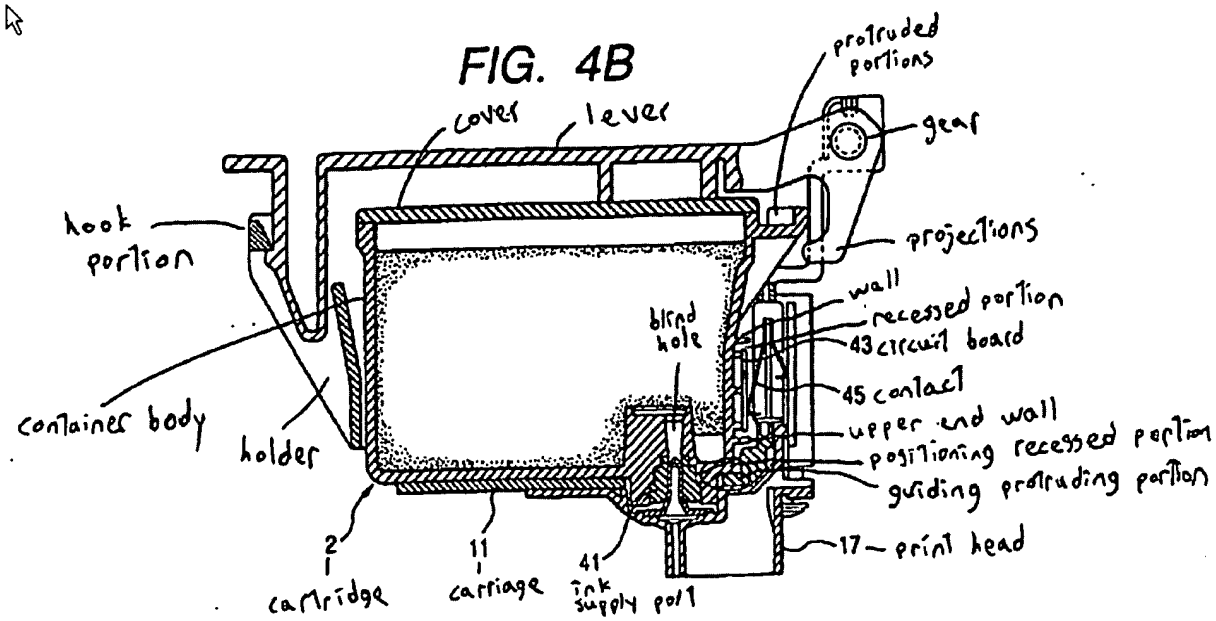
Seino et al discloses:

- {claim 1} An ink cartridge for an ink-jet recording apparatus (figure 1, references 1,2; figure 3B);

FIG. 1

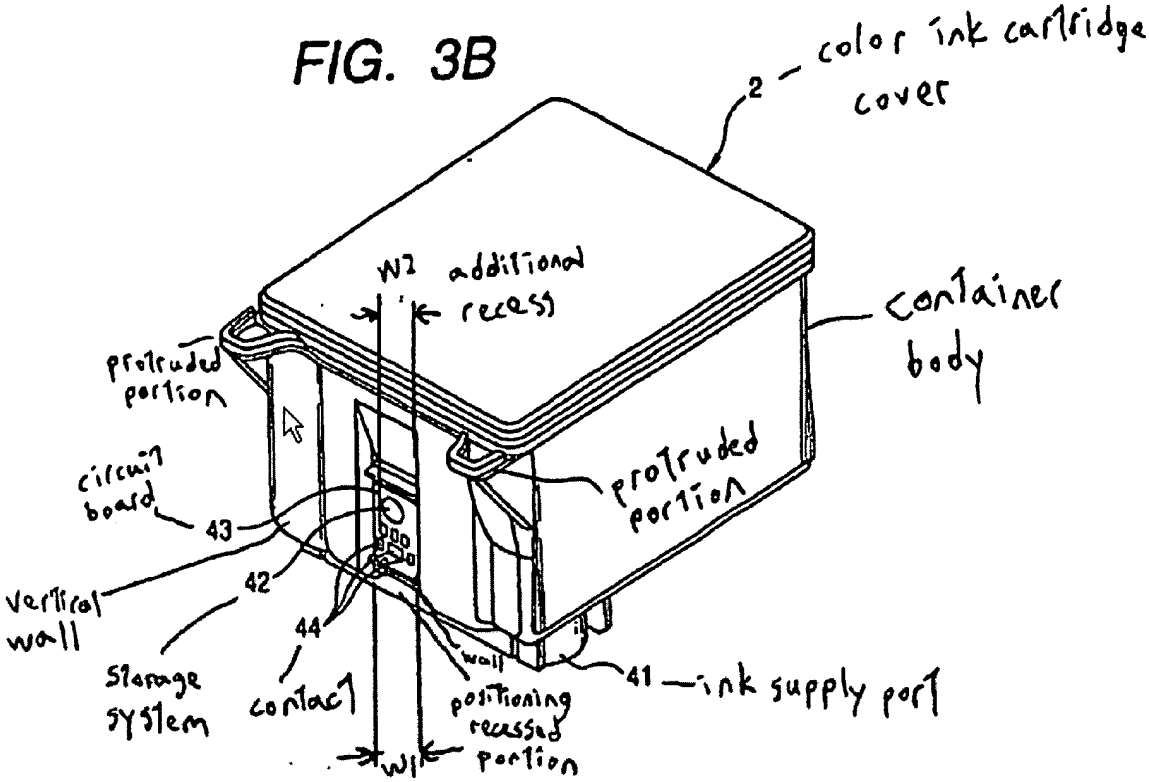


container body having an ink supply port (figure 3B, reference 41);



a storage element disposed on the container body (figure 3B, reference 42-44);

FIG. 3B



electrodes to be in contact with respective contacts provided in the recording apparatus accommodating the container body therein (figure 3B, reference 43-44; figure 4B, reference 43 and 45; contacts represent contact electrodes); a positioning system located between the ink supply port and the electrodes and is adapted to contact a positioning member of the recording apparatus to maintain the electrodes in contact with respective contacts (figure 4B, reference 43, 45; positioning recessed portion, guiding protruding portion, and ink supply needle are all drawn in and all serve as part of positioning system; contact point between positioning recessed portion and guiding protruding portion has been circled), wherein the positioning system contacts the positioning member to align the

electrodes with respective contacts in a carriage moving direction in a state in which the electrodes contact the contacts (figure 2, 4B, reference 11; it is clear that the positioning system shown in figure 4B is meant to be viewed in the context of a carriage moving direction as shown in figure 2)

- {claim 2} positioning system includes at least one recess that has an opening at a leading end thereof in an ink cartridge insertion direction, and that is engageable with the positioning member formed as a protrusion (figure 4B; positioning recessed portion, guiding protruding portion drawn in; it is seen that when the lever is lifted in a counter-clockwise direction around the gear, positioning recessed portion moves away from the guiding protruding portion; thus in the alternate direction, the recess is engageable with the positioning member; thus the claim is inherent to the invention)
- {claim 4} recess has an upper end wall to be contacted with an upper end of the protrusion (figure 4B; upper end wall drawn in)
- {claim 5} the wall extends in parallel to a direction in which the electrodes are arranged (figure 3B; wall drawn in between contact electrodes and positioning recessed portion; it is seen that the wall extends in parallel to a direction in which the electrodes are arranged)
- {claim 6} a contact area between the wall and the positioning member is wider than a width of an area in which the electrodes are arranged (figure 3B; the width of the area between the wall and the positioning member is [W1] and the width of

the area in which the electrodes are arranged [W2] are drawn in; it is seen that W1>W2)

- {claim 9} an ink cartridge for an ink-jet recording apparatus, comprising: a container body having an ink supply port; electrodes; a storage element; and a positioning recessed portion open to the side where the ink supply port is provided, and contactable with a protruding portion formed in the recording apparatus to maintain the electrodes in contact with respective contacts (figures 3B and 4B; see drawn in references), wherein the positioning recessed portion contacts the positioning member to align the electrodes with respective contacts in a carriage moving direction in a state in which the electrodes contact the contacts (figure 2, 4B, reference 11; it is clear that the positioning system shown in figure 4B is meant to be viewed in the context of a carriage moving direction as shown in figure 2)
- {claim 10} circuit board having the electrodes is accommodated in a recessed portion formed in the container body (figure 4B, references 43, 45)
- {claim 11} the positioning recessed portion is formed at a position below a circuit board having the electrodes (figure 4B, references 43, positioning recessed portion)
- {claim 13} the container body has a recessed portion for accommodating a circuit board having the electrodes, and has a wall which defines the recessed portion and is brought into contact with a top surface of the protruding portion (figure

4B, reference 43, 45, upper end wall, positioning recessed portion, guiding protruding portion)

- {claim 14} the wall extends in parallel to a direction in which the electrodes are arranged (figure 3B)
- {claim 15} a contact area between the wall and the protruding portion is wider than a width of an area where the electrodes are arranged (figure 3B)
- {claim 16} the storage element is mounted on a circuit board (figure 3B, references 42-43)
- {claim 20} the positioning system contacts the positioning member to further align the electrodes with respective contacts in one direction of a paper feeding direction, and a vertical direction in a state in which the electrodes contact the contacts (figure 4B, reference 43, 45; this is inherent when reference 43 is properly aligned with reference 45 due to the help of the positioning system)
- {claim 21} the positioning recessed portion contacts the positioning member to align the electrodes with respective contacts in one direction of a paper feeding direction, and a vertical direction in a state in which the electrodes contact the contacts (figure 4B, reference 43, 45; this is inherent when reference 43 is properly aligned with reference 45 due to the help of the positioning system)
- {claim 22} the positioning system is located at an edge portion where a bottom wall formed with the ink supply port meets a side wall formed with the electrodes (figure 4B; see drawn in references)

- {claim 23} the positioning system extends from a bottom wall formed with the ink supply port to reach at least a lower end of a circuit board having the electrodes (figure 4B; see drawn in references)
- {claim 24} the positioning system extends from the bottom wall formed with the ink supply port to reach at least a lower end of a circuit board having the electrodes (figure 4B; see drawn in references)
- {claim 25} An ink cartridge for an ink-jet recording apparatus having a protrusion and contact electrodes (figure 3B-4B); a container body having an ink supply port (figure 3B, reference 41); a storage element associated with the container body (figure 3B, reference 42-44); a recess disposed at a bottom of the ink cartridge, having an opening along an insertion direction of the ink cartridge, wherein a width of the opening along a direction perpendicular to the insertion direction is substantially equal to a width of the protrusion along the direction perpendicular to the insertion direction (figure 3B, 4B; see drawn in refs); cartridge electronics disposed at a side of the ink cartridge, contacting respective contact electrodes provided in the recording apparatus accommodating the ink jet cartridge therein (figure 3B, reference 42-44; figure 4B, reference 43, 45), wherein the recess contacts the protrusion to align the cartridge electrodes with respective contact electrodes in a carriage moving direction in a state in which the cartridge electrodes contact the contact electrodes (figure 2, 4B, reference 11; it is clear that the positioning system shown in figure 4B is meant to be viewed in the context of a carriage moving direction as shown in figure 2)

- {claim 26} the protrusion fitted into the recess fixedly maintains electrical contact between the cartridge electrodes and respective contact electrodes (figure 4B, reference 43, 45)
- {claim 27} wherein the cartridge electrodes are on a circuit board and the recess is disposed substantially on a centerline of the circuit board and the centerline of the circuit board is coincident with a centerline of the ink jet cartridge (figure 3B, 4B)
- {claim 32} An ink cartridge for an ink-jet recording apparatus (figure 1, reference 1,2; figure 3B); a container body having an ink supply port (figure 3B, reference 41); a storage element disposed on the container body (figure 3B, reference 42-44); electrodes to be in contact with respective contacts provided in the recording apparatus accommodating the container body therein (figure 3B, reference 43-44; figure 4B, reference 43, 45); a positioning system located proximate the electrodes and adapted to contact a positioning member of the recording apparatus to maintain the electrodes in contact with respective contacts along at least a carriage moving direction (figure 4B; drawn in references)
- {claim 33} wherein the positioning system comprises a recess having a first horizontal width along the carriage moving direction, the positioning member received in the recess has a second horizontal width along the carriage moving direction, and each of the electrodes has a third horizontal width along the carriage moving direction substantially equal to or greater than a difference between the first horizontal width of the recess and the second horizontal width

of the positioning member (figure 3B; the width of the contact 44 (which will be deemed the third horizontal width) is equal or greater than the difference between the first horizontal width of the recess (w1) and the second horizontal width of the positioning member (w2)

- {claim 34} wherein the first horizontal width is a distance between two vertical walls of the recess and the second horizontal distance is a distance between the two vertical walls of the positioning member (figure 3B; drawn in w1 and w2)
- {claim 35} a slit disposed behind the ink supply port and adapted to receive a projecting member of the recording apparatus, wherein the positioning system is disposed in front of the ink supply port (figure 4B, reference 41)
- {claim 36} a front retaining member disposed above the electrodes at a front side of the container body (figure 4B; drawn in projections)
- {claim 37} a back retaining member disposed at a back side of the container body (figure 4B; drawn in hook portion)
- {claim 39} wherein the carriage moving direction is perpendicular to a paper feeding direction and a cartridge insertion direction (figure 2)
- {claim 40} wherein the positioning system comprises a first sidewall and a second sidewall, the first sidewall opposes the second sidewall, and the positioning member is received in the recess (figure 3B, 4B)
- {claim 41} a slit disposed behind the ink supply port and adapted to receive a projecting member of the recording apparatus, wherein the positioning system is disposed in front of the ink supply port (figure 4B, reference 41)

- {claim 42} wherein the positioning system comprises a first sidewall and a second sidewall, the first sidewall opposes the second sidewall, and the positioning member is received in the recess (figure 3B, 4B)
- {claim 43} wherein the positioning recessed portion comprises a first sidewall and a second sidewall, the first sidewall opposes the second sidewall, and the protruding portion is received in the recess (figure 3B, 4B)

Response to Arguments

Applicant's arguments filed 10/26/05 have been fully considered but they are not persuasive.

The applicant argues, "In contrast, there is nothing in Seino which would align the electrodes with respective contact in a carriage moving direction...There is nothing to indicate that the part labeled by the Examiner as the positioning recessed portion in Figure 4B, as annotated by the Examiner in the Office Action would have any sidewalls to restrict the movement of the ink cartridge." The examiner is not clear why the applicant is equating the presence of sidewalls with the disclosure of aligning electrodes with respective contact in a carriage moving direction. The examiner believes that the applicant is improperly narrowing the scope of the claimed invention. The claimed invention gives no indication of sidewalls. However, even if it did, figure 2 of Seino et al discloses a sidewall which separates cartridges from each other.

With respect to the argument that figure 4B of Seino et al is not "identical" to figure 3 of the Applicant's invention, the examiner agrees. However, the examiner maintains that figure 4B

is "virtually" identical to figure 3. The differences mentioned by the applicant seem negligible at best. There is no disclosure in the claimed invention accounting for the very slight differences between figure 4B of Seino et al and figure 3 of the applicant's specified invention. The examiner surmises that the best way for the applicant to overcome this argument is by introducing actual numerical quantities in the claimed invention (i.e. the gap between the protruded portion and the wall is "x" mm). However, in such a scenario, the applicant would also have to give the numerical quantities for Seino et al and also give evidence of why the negligible difference between the numerical quantities accounts for the claimed invention. Otherwise, the examiner maintains that both figure 4B of Seino et al and figure 3 of the applicant's specified invention apply to the claimed invention.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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1/6/06
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PRIMARY EXAMINER